

# Flowing-Water Habitat

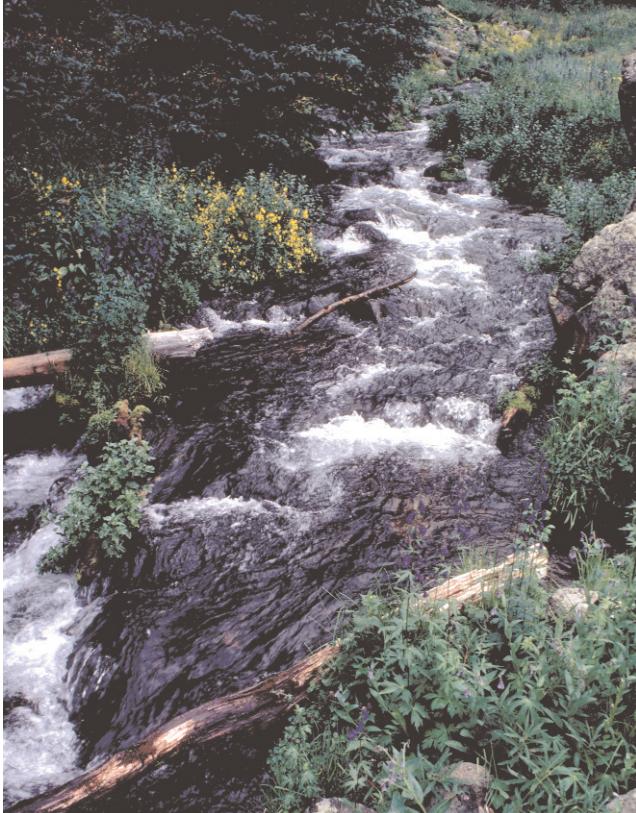


Photo Courtesy of Lynn Chamberlain



Biologists call bodies of flowing-water *lotic* habitats. In Utah, these habitats are diverse, ranging from tiny mountain rivulets to huge, boiling rapids on the state's largest rivers.

Here in the second-driest state in the nation, the same river may be dry during one part of the year and overtopping its banks at another. Lotic habitats can be shallow or deep, sunny or shaded, waters can be slow or swift, and bottoms can be covered with gravel or sand. Wildlife native to this habitat have adapted to those variable conditions, and the habitat and the wildlife it supports plays an important role in Utah's economy.

But many of Utah's flowing-water habitats are not thriving. A variety of human activities are challenging our rivers and streams. Because lotic habitats are important to all Utahns, the Utah Division of Wildlife Resources is working with a diversity of partners to ensure the future of Utah's flowing-water habitats.

## Key Facts about Utah's Flowing-Water Habitat:

### *Very Rare*

Covering less than 0.1 percent of Utah's land area, flowing-water habitats are very rare in Utah.

### *On the Decline*

Utah's biologists think that the state's flowing-water habitats are less abundant and less healthy than they once were.

### *Plant Life*

Plants in Utah's flowing-water habitats provide both food and cover to a diversity of aquatic wildlife. Other types of organisms, including bacteria and algae, also help capture the sun's energy and play a key role at the base of the food web.

### *Animal Life*

Aquatic wildlife in lotic habitats range from microscopic animals; to smaller animals such as snails, bivalves and insects; to large fish species. Anglers especially value the trout species that are found in flowing-water habitats.



# Species on the Edge

Flowing-water wildlife is threatened by a variety of human activities that are degrading their habitat. These threats affect all flowing-water wildlife, but they are especially dangerous for the 28 species of conservation need that live in flowing-water habitats.

The following are examples of some of the species of conservation need that inhabit Utah's flowing-water habitats:

## **Tier One—Very High Concern**

Colorado River and Bonneville cutthroat trout, bonytail, woundfin, razorback sucker

## **Tier Two—High Concern**

Desert sucker, Yellowstone cutthroat trout, leatherside chub

## **Tier Three—Moderate Concern**

Utah sucker, mottled sculpin



Bonneville cutthroat trout

## What's Threatening Utah's Flowing-Water Habitat?

**Water Loss**—Water demands from the state's expanding population are pulling water from rivers and streams, leaving less for wildlife.

**Nutrients and Sediments**—A variety of human activities, from riding off-highway vehicles (OHVs) inappropriately to building roads to grazing livestock inappropriately, can cause soil and other sediments to run into rivers and streams. If not well managed, fertilizers and the nutrients they contain also run into streams from farms, causing microscopic plants to grow too fast. Sediments and microscopic plants can cloud out sunlight critical for maintaining life underwater.

**Pollution**—Contaminants such as mercury threaten both fish and people.

**Channelization**—When rivers and streams are straightened, waters run faster, making it difficult for some vegetation and wildlife to survive.

**Invasive Species**—A variety of plant and animal species have been introduced to our rivers and streams, and many native plants and animals can't compete.

## Taking Action

Protecting Utah's flowing-water habitats will require coordinated action among a variety of partners across the state.

### **Conservation Actions**

The Utah Division of Wildlife Resources has identified the following key actions needed to protect flowing-water habitats:

1. Restore degraded rivers and streams, including enhancing the ability of waterways to flow naturally, where possible.
2. Secure and increase water flows in our rivers and streams.
3. Reduce or eliminate pollution by sediment, fertilizers and chemicals.
4. Modify agricultural activities to protect streams from threats from improper livestock grazing practices.
5. Monitor wildlife populations and research habitat needs to help prioritize actions.
6. Educate the public about the value of our streams and rivers.

### **Conservation Partners**

The Utah Division of Wildlife Resources is working closely with a broad spectrum of partners to protect flowing-water habitats, including the following: the Utah Reclamation Mitigation and Conservation Commission, Trout Unlimited, U.S. Department of the Interior, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, local governments, Utah Division of Water Resources, Central Utah Water Conservation District, Washington County Water Conservancy District, U.S. Bureau of Land Management and others.